

CPRI
TESTED



**THE
POWER
PEOPLE**

NANDI POWER CONTROLS AND SYSTEMS

An ISO: 9001- 2015 Certified Company

PRODUCT RANGE:

POWER DISTRIBUTION TRANSFORMERS:

- 5kVA To 5000kVA Aluminium/Copper wound Oil Cooled and Air Cooled Transformers (11kV/22kV/33kV-Class)
- Dry Type Transformers (Air Cooled)
- Booster Type Transformers (Capacitor)
- Isolation Transformers
- Special Type Transformers as per Customer Requirements.
- SPM's as per Customer Specifications and Heavy Duty Fabrications & Allied Services.

TYPE TESTS & ROUTINE TESTS:

Type tests like Impulse test, S.C & O.C test and Temperature Rise test and routine tests will be arranged at CPRI on request at extra charges. All our standard designs up to 500kVA are Type tested.

STANDARD ACCESSORIES & PROTECTIVE DEVICES:

The Following Fittings are Provided as Standard Practice for all Nandi Power Transformers.

- Conservator with Oil Level Gauge, Drain Plugs, Oil Filling Hole with Breathers of adequate size (Silica Gel).
- Air Release Plug on Top Cover to Extract Trapped air in the tank during oil filling.
- Thermometer Pocket with Plug on Top Cover.
- Explosion Vent with Diaphragm (For Transformers above 100kVA).
- HV and LV Bushings with Arching Horns.
- Drain Valve and Filter Valve with Plug.
- Earthing Terminals.
- Tap Switch Operating External Gear.
- OLTC, Marshalling boxes and RTCC Panels.



**Manufacturer & Supplier of
Power Distribution Transformers, SPM's,
Heavy Duty Fabrication, Sheet Metal Works
and Allied Services**



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ABOUT US:

We take immense pride in introducing ourselves as manufacturers of Power Distribution Transformers, offering both Oil-Cooled and Air-Cooled types. With difference capacities from 5kVA to 5000kVA, tailored for diverse applications. Established in 2010, we have amassed extensive experience and specialization in this field. Our reputation is built on timely execution, dependable service and a commitment to customer satisfaction. We are dedicated to delivering high-quality products, reliable service, and timely delivery.

OUR KEY STRENGTHS: Our design team brings deep expertise in custom-designed transformers, drawing on cross-industry experience to deliver innovative and efficient solutions. This enables us to integrate proven techniques across various sectors to meet unique customer requirements. We employ the latest technology and materials in our R&D efforts, including the use of amorphous wire, Nomex insulation, and advanced techniques.



DESIGN TRANSPARENCY: Customers are welcome to participate in design reviews, request clarifications and discuss specifications or system conditions such as overloads, surge voltages and also have full access to inspection processes and may conduct as many stage inspections as desired to ensure quality and compliance.



TERMINATIONS: We provide terminal arrangements as per customer requirements, including cable boxes with cable entry glands for both H.V and L.V sides. Our transformers use porcelain bushings conforming to IS: 3347/1965.

QUALITY ASSURANCE: We understand the critical importance of quality. Every stage of manufacturing undergoes strict quality checks. Our quality control process integrates engineering expertise, manufacturing experience and superior raw materials to deliver a product with inherently high standards.

INSULATION AND IMPREGNATION: We use only high-grade electrical Kraft paper and pressboard as per IS:1576. These materials are selected for their high dielectric strength, moisture resistance, aging properties, and compatibility with transformer oil. Insulating varnish is used to impregnate windings. Fibre Glass Insulations (as per IS: 1923) further enhance insulation reliability.



DESIGN STANDARDS: We design and test our products in accordance with IS: 2026, IS: 1180, IEC: 76, BS: 171 and customer-specific requirements.

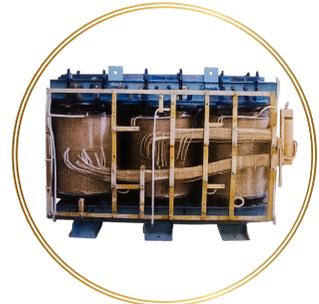
TRANSFORMER OIL: The insulating oil used is of low viscosity with excellent resistance to oxidation, sludge formation and acid generation. Oil properties such as moisture content, dielectric strength and alkalinity are tested and certified as per IS:335/1972. Before filling, the oil undergoes hot filtration to ensure purity and performance.



CORE CONSTRUCTION: Our transformer cores are made from CRGO low-loss electrical grade laminations in line with the latest IS standards. Laminations are coated with oil-resistant insulation on both sides and are tested for physical and dielectric properties.

WINDINGS: We use high-conductivity, paper-covered copper and aluminium conductors to meet stringent electrical, mechanical, and thermal requirements. Conductors are annealed for optimal softness and insulation is tested for ash content and moisture absorption.

CONNECTIONS & TAPINGS: End connections are crimped or brazed, then clamped to ensure mechanical strength and low resistance. Tap-changing is achieved through off-circuit tap switches with an external, pad-lockable handle. Our tap switches are robustly designed with high-grade contacts to ensure long, trouble-free service. They accommodate voltage variations of $\pm 10\%$ in up to 8 steps.



TANK FABRICATION: All transformer tanks are constructed using high-grade, tested mild steel. The design ensures adequate thickness to withstand internal pressure. Leak testing is performed at 0.5 kg/cm² or higher, ensuring even minute leaks are detected. Pressed steel radiators are used for improved cooling efficiency. Radiators are individually pressure-tested before mounting. All welding is done to stringent standards using jigs and fixtures for dimensional accuracy.

TESTING: Each transformer undergoes routine testing in our fully equipped testing facilities, conforming to IS: 2026 standards. A detailed test certificate and Guarantee is provided for every unit.

TRANSPOSITIONS: In multi-conductor windings, transpositions are incorporated to ensure uniform current distribution and minimize circulating currents.

